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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,095	04/01/2004	Dominic A. Cataldo	BGT 2-007	9481
265 7590 02/19/2009 MUELLER AND SMITH, LPA MUELLER-SMITH BUILDING 7700 RIVERS EDGE DRIVE COLUMBUS, OH 43235			EXAMINER LEVY, NEIL S	
			ART UNIT 1615	PAPER NUMBER
			MAIL DATE 02/19/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/816,095

**Applicant(s)**

CATALDO ET AL.

**Examiner**

NEIL LEVY

**Art Unit**

1615

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12, 14, 15, 17, 19, 20, 39 and 40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14, 15, 17, 19, 20, 39 and 40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-12, 14, 15, 17, 19, 20, 39, 40 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Note the restriction and species election of 2/06/06.

### ***Claim Rejections - 35 USC § 103***

Claim 1-12, 14, 15, 17, 19, 20, 39, 40 rejected under 35 U.S.C. 103(a) as being unpatentable over OHNO et al IN VIEW OF Beall et al AND Kknudson, jr..

OHNO provides solid, liquid or gas active control agent (column 3, bottom); a liquid form is mixed with phylosilicate, the instant nanoclay [0019] and heated to 40-120 degrees F (column 3, bottom; column 40, line 20). The loaded nanoclays are then formed into barriers (column 7, line 30- column 8, line 13). These include paints, plastics, caulking. Applicant has shown no criticality in the heat liquefying of a solid agent, opposed to providing a liquid agent. Both permit adsorption by clay. Neither is there a criticality to the claimed separate heating of agent and nanoclay, as opposed to heating the mixture. There was no intercalation with ammonium.

BEALL is cited as showing nanoclays, montmorillonite phylosilicates functionalized with ammonium and useful with instant pesticides. KNUDSON is cited to show the claim 19 instant C6ammonium intercalating agent.

***Response to Arguments***

Applicant's arguments filed 10/06/08 have been fully considered but they are not persuasive. Applicant argues CATALDO's declaration shows the heated organoclay and active to provide greater longevity than the KNUDSON organoclay, if not heated. However, KNUDSON was cited to show the claimed ammonium intercalant; heating was done by OHNO, and so we would expect the same longevity and performance if OHNO used the KNUDSON intercalants, with actives of OHNO, BEALL, OR KNUDSON. Note the example referred to in the instant application [0066] mixes trifluralin and clay at the same time. The only support for the instant claim 1 (a) liquefying a solid (b) heating nanoclay, and (c) loading nanoclay with active is the second sentence at [0070] of the instant pre-publication.

/NEIL LEVY/

Primary Examiner, Art Unit 1615

2/18/09